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# QUALITY GUIDES *in* BUYING SHEETS *and* PILLOWCASES

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When you buy sheets and pillowcases, what are your guides? Do you put price or quality first? And how do you judge quality? Sheets and pillowcases are standard household cottons; you have a right to expect service from them. But their length of life depends on the quality of the fabric at the start as well as on the care you give them.

When you buy tempting bargains that prove after the first washing to be shoddy merchandise, you are cheating yourself. Also you are helping to undermine conditions for everybody from the farmer who grows the cotton to the people who weave it into cloth and the men and women who sell it to you as finished sheets. The Government is trying to better these conditions for the good of everybody.

As an aid to consumers in judging the quality of sheets and pillowcases on the retail counter, some manufacturers are putting informative labels on their goods. To be ideal such a label should give thread count, tensile strength (breaking strength), weight, and amount of sizing. It should also give the length and width and tell whether the sheet is a "first" or a "second" (fig. 1). So far no cotton sheets sold at retail are labeled as completely as this, but you can find some marked with their thread count, others with their tensile strength, and some guaranteed for so many washings. Of course, such superlatives as "extra special", and "the best sheet made", are too general to have real meaning. If you are one of the consumers who wants to buy by quality, let the manufacturer know that you appreciate facts on the label.

## CHARACTERISTICS OF A GOOD SHEET

### Long fibers and strong, well-twisted yarns

If you are buying sheeting by the yard, ravel out a yarn, break it, and note its strength. Untwist the fibers and see if they are so short that the yarn will soon become fuzzy. You will find cotton fibers all the way from less than a half inch to 1½ inches in length. You want a sheet with most of the fibers at least an inch long. The length of a fiber is often called its "staple." You will sometimes see fabrics described as made of short-, medium-, or long-staple cotton. The better grades of sheeting are made of medium- or long-staple cotton.

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Twisting binds the ends of the fibers and holds them in place. It also adds to the strength of the yarn and makes the fabric more durable. You want a firmly twisted yarn, one that is not so soft that it will be weak and wear out easily nor so hard that the fabric will be harsh and uncomfortable. A good yarn is strong, smooth, and even.

## Close thread count

The thread count of a fabric is the number of yarns per inch, both lengthwise (warp) and crosswise (filling). For example, a 72 by 68 thread count means 72 warp yarns, or "ends", per inch and 68 filling yarns, or "picks", per inch. If correctly stated, the number of warp yarns is given first. When the two numbers are the same the fabric is often described as "square." For example, a cloth with a thread count of 64 by 64 may be called a "64 square." Sometimes the two numbers are added and the total yarns per square inch stated. A 72 by 68 thread count would then be termed 140 per square inch. Such a statement is not very valuable to the purchaser, since there is no way of knowing whether the 140 yarns are about equally divided between the warp and filling or whether there are many more one way of the cloth than the other. If the latter is the case, the fabric is "unbalanced" and probably will not wear well. A good sheet has a close, firm, even weave.

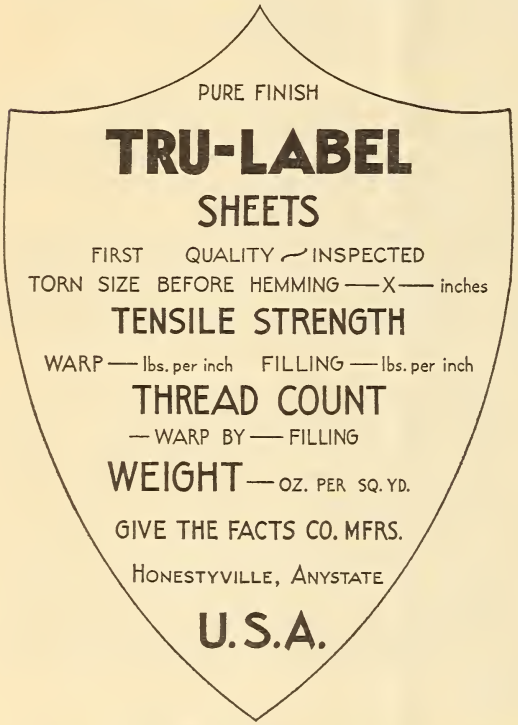


FIGURE 1.—An ideal label gives facts about the sheet.

You can get some idea of the evenness and balance of a fabric by holding it between yourself and a strong light and noting how the warp and filling yarns look. But it is better to insist on knowing the thread count, especially when comparing sheets of different prices or buying a "bargain." Low thread count is often the reason behind low price and short wear. You will find on the market sheets with a great variety of thread counts. For example, a study made at Iowa State College of 109 sheetings showed thread counts ranging from 54 to 109 in the warp and from 47 to 97 in the filling. In general sheets with very low thread counts, below 60, are coarse and sleazy. In percale sheets, which have a very fine texture, the thread count is much higher, 90 or above. Muslin sheets satisfactory for everyday household use have a thread count ranging from 66 to 76 each way.

## High tensile strength

Another indication of wearing quality in a fabric is the tensile strength. To find this a textile expert uses an instrument which registers the number of pounds required to break a piece of the fabric. The tensile strength of the 109 sheetings also studied for thread count varied from 27 to 68 pounds warpwise and from 21 to 80 pounds fillingwise (grab method). At present figures on tensile strength are given for only a few sheets sold at retail. But if the purchaser demands it, more manufacturers would give such information. Ask about the breaking strength of the next sheets you buy. Anyway pull the fabric between your hands to get some idea of the strength if you can learn nothing more definite about this quality.

Unbleached sheetings are available in qualities and widths similar to the bleached. Bleaching weakens cotton fabrics somewhat, but with improved mill practices is less detrimental than it used to be. To many persons the snowy whiteness of the bleached sheeting more than makes up for the loss in tensile strength.

## No flaws in yarn or weave

Of course there are always some slight irregularities in fabrics. Few are perfect. But a first-grade sheet has practically no knots, uneven yarns, or thick or thin places in the weave. Every filling yarn runs unbroken from selvage to selvage.

If a sheet has defects in the yarn and the weave, it is a "second" or an "irregular", and should be so labeled. It should be sold for a lower price than a "first." These flaws are usually the weakest part of the sheet (fig. 2). Here the holes and threadbare spots appear first. Some mills that sell their firsts under widely advertised brand names put their seconds on the market as other brands less well known. If you run across a brand that is new to you, inquire about this point.

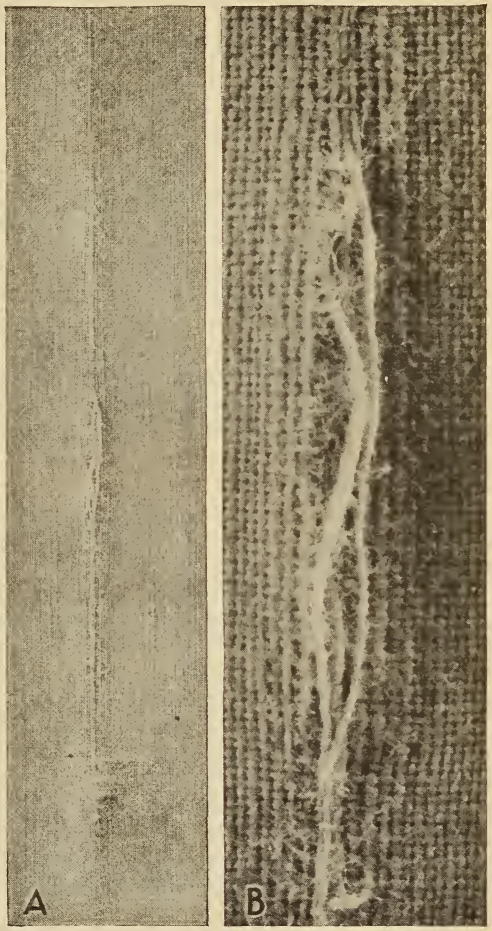


FIGURE 2.—A typical flaw in the weave of a new sheet: *A*, Original size; *B*, magnified.

Some flaws affect only the appearance and not the wearing quality. If you know you are buying a second and are sure the defects are not serious, it may be an economical purchase. But examine all parts of the sheet, note

every damaged place carefully, and decide how it will affect durability. Use the same care in buying a first, especially if it is offered at bargain prices. What is a first and what is a second depends upon the standards and honesty of manufacturer and merchant. No definite rules for grading sheets according to flaws exist as yet in the industry.

## Very little sizing

Sizing is the starch and other materials used in manufacture to give sheeting a smooth finish. Some sizing is necessary on the warp yarns to keep them from breaking in the loom, and a little sizing on the fabric makes it more attractive and does no harm, but sometimes large amounts are used to fill up a poorly woven fabric and make it appear heavier. The quantity may vary from less than 1 percent in good-quality sheets to 20 or 30 percent in those of low quality. After one or two washings an excessively sized sheeting will turn out to be sleazy, quite different from the kind you thought you were buying.

Notice what the label on the sheet says about sizing and whether it gives the percentage. "Pure finish" means the minimum amount of sizing. "No weighting" indicates that no heavy materials, such as china clay, were used. Rub the fabric between your hands to see if sizing comes out. If you are buying sheeting by the yard, take home a sample and notice if its weight or appearance changes a great deal when you wash it.

Some sheets are made of mercerized yarns or are mercerized after they are woven. Mercerizing produces a permanent gloss and adds to the attractiveness of the sheet. It is well to inquire whether a "linen-finish" sheet is mercerized or has merely been given a temporary gloss.

## Suitable weight

The weight of a sheet minus the sizing is a measure of the amount of cotton you are buying. For example, an unsized sheet 90 by 108 inches, made of 4-ounce fabric, contains 1⅞ pounds of cotton. After you have tested for sizing and satisfied yourself that you are not getting an excess, compare weights. There are good, durable sheets made in many different weights. If the sheet is light in weight, notice whether this is because it is made of very fine yarns placed close together, such as you find in a percale sheet, or because it is sleazy and poor in quality. Low weight may mean less wear. Sheets that are very light in weight and loosely woven always wrinkle, are uncomfortable to sleep on, and do not look well on the bed. On the other hand, too heavy sheets are cumbersome to handle, and if you are paying for your laundry by the pound, they run up the laundry bill and are uneconomical in the end. They are also more difficult to launder at home. In the study of the 109 bleached sheetings already mentioned, the weights of the fabrics ranged from about 3 to 5 ounces per square yard.

The particular weight of sheet you choose is largely a matter of personal preference. But if you know the weight of your sheets and which is most satisfactory, you can buy that weight next time and can also have a better basis for comparing different sheets in the store. Buying sheets by weight, that is by the number of ounces in a square yard, may seem a novel idea, but the Federal Government and many private institutions follow this plan. Weight is one of the specifications by which they buy their sheets in order to be sure of getting the same quality when they reorder. So find out the weight of the sheeting which best suits your purpose, and make it part of your standard in buying.

## Strong, durable selvages

The selvages of sheets receive hard wear and are often the first part to give way. Be sure they are strong and wide enough to hold the yarns securely. A tape selvage if well made has extra yarns so woven in as to reenforce it greatly.

## Well-sewed hems

On a high-quality sheet the hems are closed at the ends and evenly turned. The stitching is fine and even and is fastened securely. If they

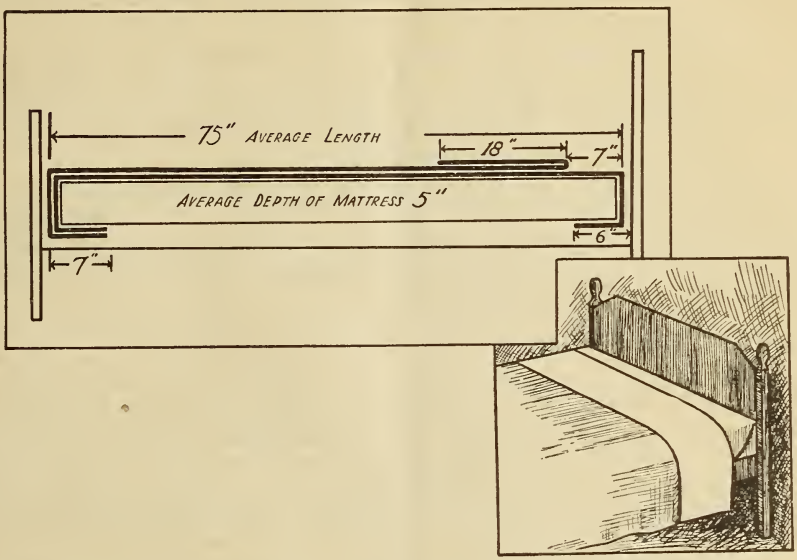


Figure 3.—A 108-inch sheet allows 5 inches for shrinkage and a generous tuck-in at both the foot and the head of the bed. A sheet of ample length stays in place and makes a well-tailored bed.

are hemstitched, the work is done neatly and durably. Hemstitched hems tear off more readily than stitched ones, but they add to the attractiveness of the sheet.

Colored hems have been popular recently. When the colors chosen are soft in tone and not gaudy, such sheets may help to carry out the color scheme of a bedroom in a pleasing way. But the colors must be in good taste and not liable to fade in washing if they are to be entirely satisfactory. Sheets must be washed more often than many other household fabrics, and it is not always possible to take the precautions necessary to safeguard fugitive colors. Before buying sheets with colored hems, see that they carry labels guaranteeing that the color is fast.

## Wide enough and long enough

An under sheet should tuck in well under the mattress all the way around. The top one should tuck in securely at the foot and sides and turn back far enough over the other bed coverings to protect them (fig. 3). This is not merely for the sake of the appearance. It adds to the comfort of the person who occupies the bed and also means less wear on the sheet and the rest of the bedding. A sheet that pulls out of place and becomes wrinkled and wadded is more likely to be torn than one held down firmly and smoothly.

Know the size of sheet you need before you buy. If you are in doubt, measure the size and thickness of your mattress and allow for generous tuck-ins. Remember the length labeled on a sheet is the length before hemming. The finished sheet is about 5 or 7 inches shorter, depending upon the width of the hems. It may shrink 5 to 8 inches in length when laundered. Also notice whether the label specifies "torn" length. If so the sheeting was torn with the thread of the goods, and the sheet will stay true after washing and have straight, flat hems. A sheet that is cut from the bolt, not torn, will draw out of shape in laundering and have puckered hems. Watch this point in buying sheets with colored hems. Sometimes in the cheaper grades a straight colored hem is hemstitched on to a "cut" sheet.

For general household use, sheets 99 or 108 inches long (torn length) are the most satisfactory although you will find on the market sheets 90 inches and less. The common widths are 63 inches (single or twin bed), 72 inches (twin or three-quarter bed), 81 inches (double bed), and 90 inches (double bed). Bargain sheets are often smaller than standard.

Sheetings sold by the yard are usually 63 and 72 inches wide for twin or three-quarter beds and 81 and 90 inches for double beds. These widths are often given in terms of a quarter of a yard. For example, a 63-inch sheeting is called seven quarters (7/4); a 72, eight quarters (8/4); an 81, nine quarters (9/4); and a 90, ten quarters (10/4).

## How long should a sheet last?

The life of a sheet depends on its use and abuse as well as on its quality. But, assuming reasonable care, how long can you expect a sheet to wear?

As part of a study of the durability of various American-grown cottons when made into fabrics, the Bureau of Home Economics recently tested the wearing qualities of some medium-weight sheets. They were laundered after every night of use in a hotel. All were serviceable until used and laundered 197 times, and some lasted until used and laundered 252 times. Sheets are sometimes advertised as able to withstand a certain number of washings. Wear and washing combined form a better measure of actual durability, but figures on the number of washings are at least a rough index of the time you can expect to keep a sheet in service.

The study also showed that sheets wear out first between the center of the bed and the pillow, where they are rubbed by the shoulders of the person sleeping on them. This wear can be distributed and the life of the sheet lengthened by buying sheets with hems of equal width so that either end may be used at the head of the bed. It pays to watch every detail in the use and laundering of sheets. Many snags and tears are caused by rough places on the bedstead or exposed ends of bed springs. Mattress pads decrease the wear on both sheets and mattresses.

Strong bleaches used in laundering cut down the length of service a great deal. Plenty of soap and little or no bleach is a good practice to follow in all laundry work but is especially necessary when the fabric is a sheet which is washed often. Some authorities believe that ironing deteriorates a cotton fabric even more than wear or washing. Too hot irons are the worst offenders. They gradually weaken the cotton even if the scorch is not deep enough to be seen.

Ironing folds through the center of the sheet is also bad practice. These folds are not only pressed in very hard by the iron but are further pressed by the weight of the pile when the sheets are stored. All this tends to break the

yarns where they are creased at the edge of the fold. In many hotels and institutions, where the durability of furnishings is a very important item, all bedding and towels are folded after they are taken from the ironer, and as few folds are made as the storage space will permit. When commercial or household ironers are used, care must also be taken not to iron in lengthwise creases along the selvages. These soon wear through, and the selvages tear off.

If you are bothered by the shrinkage of your sheets, remember that the way they are ironed influences this a great deal; that is, whether they are ironed selvage to selvage or end to end. Continued ironing in one direction increases the length that way and decreases it the other.

It pays to keep a record of the kind of sheets you buy and the date on which you purchased them. You are then better able to know what kind to reorder.

## FEDERAL SPECIFICATIONS FOR COTTON BLEACHED SHEETS

When you buy sheets you select them according to your household needs, your preferences, and your pocketbook. You may want heavy durable muslin to withstand the wear and tear of romping boys, or you may be looking for the softest, smoothest fabric you can afford. Whatever you want, you need definite facts as a guide in buying.

A good illustration of the kind of facts you need is furnished by the Government's specifications for the sheets it buys. These are minimum specifications, drawn up to meet the requirements of a Government hospital or some such specific use. They are not set up to fit conditions in the household or in private institutions. They may not describe the type of sheets you need at all, but they suggest the kind of information that should be furnished to you on the labels of the sheets you see in the stores.

Federal specifications for bleached cotton sheets require that the minimum number of threads per inch shall be 74 in the warp and 66 in the filling. The minimum weight shall be 4.6 ounces per square yard. The minimum breaking strength (grab method) shall be 70 pounds in the warp and 70 pounds in the filling. The sheets shall have a 1-inch hem at one end and a 3-inch hem at the other or a 2-inch hem at each end as specified, and the stitches shall be not less than 14 to the inch. All the sheets purchased are 99 or 108 inches long (torn length), except the 54-inch width, which is also purchased in a 90-inch length. The widths bought are 54, 63, 72, 81, and 90 inches.

## GOOD-QUALITY PILLOWCASES

Practically all the tests for quality in sheets hold good also for pillowcases. Pillowcases are in fact made of sheeting woven in tubular form or in narrow widths. Pillowcase tubing is easier to make up, and does away with the possibility of a puckered seam down one side. Also with tubular casing, you can rip the end seam and remake the case so that the hardest wear comes in a new place, and you thus get longer service. As with sheets, the fabric for pillowcases should be torn, not cut, and the hems turned evenly so that they will iron flat. The stitching should also be well done and even.

The common sizes for cases are 42 by 36 inches and 42 by 38½ inches for a 21- by 27-inch pillow, and 45 by 36 and 45 by 38½ inches for a 22- by 28-inch pillow. It is always wise to have the case a little larger around than

the pillow. Too tight cases are under strain when the pillow is flattened down and soon break. Too loose pillowcases look clumsy and are uncomfortable in use. The length is a matter of personal preference.

## FEDERAL SPECIFICATIONS FOR COTTON BLEACHED PILLOWCASES

The Federal specifications for pillowcases call for the same thread count, weight, and breaking strength as for sheets. The hems must be 3 inches, straight, and of uniform width, the turn-under on the hem not less than one fourth of an inch. Where the seams form a union of edges, a type of seam and stitch must be used which will prevent the raveling of the goods. The stitches in hems and seams must be not less than 14 to the inch. The sizes specified are as follows: 42 by 36; 42 by 38½; 45 by 36; and 45 by 38½ inches. The length refers to torn length before hemming. As stated above, Government specifications are minimum only and will not necessarily be satisfactory to all household and institutional purchasers.

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